

**Notice of Allowability**

Application No.

09/912,252

Examiner

Quang Nguyen, Ph.D.

Applicant(s)

CROZE ET AL

Art Unit

1633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/01/06.
2. ☒ The allowed claim(s) is/are 43-50.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

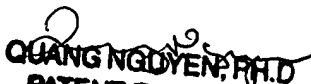
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                        |
|   | 9. <input type="checkbox"/> Other _____  |

  
QUANG NGUYEN, PH.D.  
PATENT EXAMINER

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Wendy L. Washtien on May 04, 2006-May 08, 2006.

#### ***In the claims:***

Claims 28-30, 35-40 and 42 were cancelled. Additionally, non-entered claims 25-27 were cancelled. The following new claims 43-50 were added.

***Claim 43 (New)*** A method for enhancing type I IFN growth inhibition of a human tumor target cell population possessing functional interferon alpha receptor 2c (IFNAR2c) polypeptide chains, said method comprises the steps of:

- (a) introducing an exogenous polynucleotide encoding a human IFNAR2c polypeptide chain directly into cells of said human tumor target cell population to produce modified target cells, wherein the modified target cells possess an increased number of functional IFNAR2c polypeptide chains on their cell surface as compared with unmodified target cells, and
- (b) contacting the modified target cells with a therapeutically effective amount of a human type I IFN,

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wherein the growth inhibition in the presence of the therapeutically effective amount of a human type I IFN for the modified target cells is enhanced as compared with unmodified target cells.

**Claim 44 (New)** The method of claim 43, wherein the human type I IFN is a type I  $\alpha$ -IFN, a type I  $\beta$ -IFN, or a type I  $\omega$ -IFN.

**Claim 45 (New)** The method of claim 43, wherein said exogenous polynucleotide is a viral vector encoding the human IFNAR2c polypeptide chain.

**Claim 46 (New)** The method of claim 45, wherein the viral vector is a retroviral vector or an adenoviral vector.

**Claim 47 (New)** The method of claim 43, wherein said exogenous polynucleotide is introduced directly into cells of said human tumor target cell population by electroporation.

**Claim 48 (New)** The method of claim 43, wherein the growth inhibition is enhanced by at least 5%.

**Claim 49 (New)** The method of claim 43, wherein the growth inhibition is enhanced by at least 10%.

**Claim 50 (New)** The method of claim 45, wherein said viral vector further comprises a polynucleotide encoding a human type I IFN.

***It is noted that the set of Drawings, filed on 07/25/2001, was accepted by the Examiner.***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang Nguyen, Ph.D., whose telephone number is (571) 272-0776.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Dave Nguyen, may be reached at (571) 272-0731.

**To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1633; Central Fax No. (571) 273-8300.**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

  
**QUANG NGUYEN, Ph.D.**  
**PATENT EXAMINER**